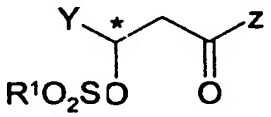
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ~~production~~ method of producing an optically active N-aryl-β-amino acid compound ~~characterized in that~~ comprising reacting an optically active sulfonate ~~compounds~~ compound represented by the ~~following general~~ formula (1):



(1)

~~[in this formula,~~ wherein

Y ~~indicates~~ is an optionally substituted methyl group or aryl group,

Z ~~stands for~~ is a hydroxy group, optionally substituted amino group, optionally substituted alkoxy group or optionally substituted aryloxy group,

R^1 ~~represents~~ is an optionally substituted alkyl group with a carbon atom number from 1 to 10, an optionally substituted aryl group with a carbon atom number from 6 to 15, an optionally substituted aralkyl group with a carbon atom number from 7 to ~~20. Further,~~ 20, and

* indicates an ~~optically active~~ chiral carbon atom, in the R or S ~~configuration]~~ configuration;

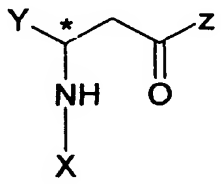
~~are reacted~~ with an aromatic amine represented by ~~the following~~ formula (2):

$X\text{-}NH_2$ (2)

~~[in this formula~~ wherein

X ~~stands for~~ is an optionally substituted aryl group with a carbon atom number from 6 to 15 or an optionally substituted heteroaromatic group with a carbon atom number from 3 to ~~15.]~~ 15;

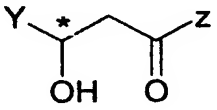
to produce ~~the~~ said optically active N-aryl-β-amino acid ~~compounds~~ compound, wherein said optically active N-aryl-β-amino acid compound is represented by ~~the following~~ formula ~~(3).~~ (3):



(3)

~~[in this formula~~ wherein X, Y, Z and * ~~have the same meaning as described above.]~~ are as defined above.

2. (Currently Amended) ~~A production~~ The method as claimed in claim 1 further comprising a ~~process, in which by the reaction of~~ producing a compound of formula (1) by reacting an optically active β-hydroxycarboxylic acid ~~compounds~~ compound represented by ~~the following~~ formula (5):

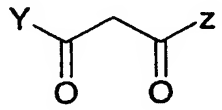


(5)

~~[in this formula,~~ wherein Y, Z and * ~~show the same meaning as described above.]~~ are as defined in claim 1;

with sulfonyl chlorides or sulfonic acid anhydride~~, the optically active sulfonate compounds represented by the above described formula (1) are manufactured~~.

3. (Currently Amended) ~~A production~~ The method as claimed in claim 2 further comprising ~~a process, in which by the~~ producing a compound of formula (5) by contacting an asymmetric reduction of a β-keto carboxylic acid ~~compounds~~ compound represented by ~~the following~~ formula (4)



(4)

~~[in this formula,~~ wherein Y and Z ~~have the same meaning as described above.]~~ are as defined in claim 2;

~~in the presence of~~ with a catalyst or enzyme~~, the optically active β-hydroxycarboxylic acid compounds represented by the above described formula (5) are manufactured~~.

4. (Currently Amended) ~~A production~~ The method ~~for the optically active N-aryl-β-amino acid compounds~~ as claimed in ~~any of the claims 1 to 3 characterized in that~~ claim 1, wherein R^1 in the sulfonate ~~compounds , represented by the above described~~ compound of formula ~~(1),~~ (1) is a trifluoromethyl, methyl or p-tolyl group.

5. (Currently Amended) ~~A production~~ The method ~~for the optically active N-aryl-β-amino acid compounds~~ as claimed in claim 4 ~~characterized in that,~~ wherein R^1 in the

sulfonate ~~compounds, represented by the above described~~ compound of formula ~~(1),~~ (1) is trifluoromethyl.

6. (Currently Amended) ~~A production~~ The method ~~for the optically active N-aryl-β-amino acid compounds as claimed in any of the claims 1 to 5 characterized in that~~ as claimed in claim 1, wherein in the sulfonate ~~compounds, represented by the above described~~ compound of formula ~~(1),~~ (1) the ~~relevant~~ sulfonyl group is introduced by using trifluoromethanesulfonic acid anhydride as a sulfonylation agent and ~~that~~ R^1 is a trifluoromethyl group.

7. (Currently Amended) ~~A production~~ The method ~~for the optically active N-aryl-β-amino acid compounds as claimed in any of the claims 1 to 6 characterized in that the relevant reaction is carried out~~ as claimed in claim 1, wherein said reacting is at a temperature of 5°C ~~and~~ or less.

8. (New) The method as claimed in claim 2, wherein R^1 in the sulfonate compound of formula (1) is a trifluoromethyl, methyl or p-tolyl group.

9. (New) The method as claimed in claim 8, wherein R^1 in the sulfonate compound of formula (1) is trifluoromethyl.

10. (New) The method as claimed in claim 2, wherein in the sulfonate compound of formula (1) the sulfonyl group is introduced by using trifluoromethanesulfonic acid anhydride as a sulfonylation agent and R^1 is a trifluoromethyl group.

11. (New) The method as claimed in claim 2, wherein said reacting is at a temperature of 5°C or less.

12. (New) The method as claimed in claim 3, wherein R^1 in the sulfonate compound of formula (1) is a trifluoromethyl, methyl or p-tolyl group.

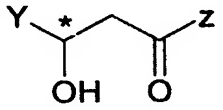
13. (New) The method as claimed in claim 12, wherein R^1 in the sulfonate compound of formula (1) is trifluoromethyl.

14. (New) The method as claimed in claim 3, wherein in the sulfonate compound of formula (1) the sulfonyl group is introduced by using trifluoromethanesulfonic acid anhydride as a sulfonylation agent and R^1 is a trifluoromethyl group.

15. (New) The method as claimed in claim 3, wherein said reacting is at a temperature of 5°C or less.

16. (New) The method as claimed in claim 3, wherein said catalyst is a Ru-binap catalyst.

17. (New) The method of claim 1, wherein an optically active β-hydroxycarboxylic acid compound represented by formula (5):



(5)

wherein Y, Z and * are as defined in claim 1;

is reacted with a sulfonylating reagent in the presence of an organic teritiary amine to produce said optically active sulfonate compound represented by the formula (1).

18. (New) The method of claim 17, wherein said optically active sulfonate compound represented by the formula (1) is reacted with said aromatic amine represented by formula (2) without isolation from the reaction mixture.